

NEW COURSE FORM

1. General Information.

- a. Submitted by the College of: Engineering Today's Date: 9/23/2011
- b. Department/Division: Mining Engineering
- c. Contact person name: Daniel Tao Email: dtao@engr.uky.edu Phone: 257-2953
- d. Requested Effective Date: Semester following approval OR Specific Term/Year¹: _____

2. Designation and Description of Proposed Course.

- a. Prefix and Number: MNG191
- b. Full Title: Mine Graphics
- c. Transcript Title (if full title is more than 40 characters): _____
- d. To be Cross-Listed² with (Prefix and Number): _____
- e. Courses must be described by at least one of the meeting patterns below. Include number of actual contact hours³ for each meeting pattern type.

_____ Lecture 2 hr Laboratory¹ _____ Recitation _____ Discussion _____ Indep. Study
_____ Clinical _____ Colloquium _____ Practicum _____ Research _____ Residency
_____ Seminar _____ Studio _____ Other – Please explain: _____

- f. Identify a grading system: Letter (A, B, C, etc.) Pass/Fail
- g. Number of credits: 1
- h. Is this course repeatable for additional credit? YES NO
- If YES: Maximum number of credit hours: _____
- If YES: Will this course allow multiple registrations during the same semester? YES NO

- i. Course Description for Bulletin: This course is designed to provide students an understanding of CAD core functionality and features so that they can create, edit, and organize their engineering drawings. It covers essential CAD commands and functions, including coordinate systems, drawing tools, layer management, dimensioning, undoing and altering, moving and duplicating, arrays, blocks, viewports, file maintenance, measurement and calculations, plotting and printing. The course emphasizes hands-on experience with CAD software and practical applications in mining and processing applications.

- j. Prerequisites, if any: No
- k. Will this course also be offered through Distance Learning? YES⁴ NO
- l. Supplementary teaching component, if any: Community-Based Experience Service Learning Both

¹ Courses are typically made effective for the semester following approval. No course will be made effective until all approvals are received.

² The chair of the cross-listing department must sign off on the Signature Routing Log.

³ In general, undergraduate courses are developed on the principle that one semester hour of credit represents one hour of classroom meeting per week for a semester, exclusive of any laboratory meeting. Laboratory meeting, generally, represents at least two hours per week for a semester for one credit hour. (from SR 5.2.1)

⁴ You must *also* submit the Distance Learning Form in order for the proposed course to be considered for DL delivery.

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3. Will this course be taught off campus? YES NO

4. Frequency of Course Offering.

a. Course will be offered (check all that apply): Fall Spring Summer

b. Will the course be offered every year? YES NO

If NO, explain: _____

5. Are facilities and personnel necessary for the proposed new course available? YES NO

If NO, explain: _____

6. What enrollment (per section per semester) may reasonably be expected? 30

7. Anticipated Student Demand.

a. Will this course serve students primarily within the degree program? YES NO

b. Will it be of interest to a significant number of students outside the degree pgm? YES NO

If YES, explain: _____

8. Check the category most applicable to this course:

Traditional – Offered in Corresponding Departments at Universities Elsewhere

Relatively New – Now Being Widely Established

Not Yet Found in Many (or Any) Other Universities

9. Course Relationship to Program(s).

a. Is this course part of a proposed new program? YES NO

If YES, name the proposed new program: _____

b. Will this course be a new requirement⁵ for ANY program? YES NO

If YES⁵, list affected programs: Mining Engineering

10. Information to be Placed on Syllabus.

a. Is the course 400G or 500? YES NO

If YES, the *differentiation for undergraduate and graduate students must be included* in the information required in **10.b**. You must include: (i) identification of additional assignments by the graduate students; and/or (ii) establishment of different grading criteria in the course for graduate students. (See SR 3.1.4.)

b. The syllabus, including course description, student learning outcomes, and grading policies (and 400G-/500-level grading differentiation if applicable, from **10.a** above) are attached.

⁵ In order to change a program, a program change form must also be submitted.

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Signature Routing Log

General Information:


Course Prefix and Number: MNG 191

Proposal Contact Person Name: Daniel Tao Phone: 257-2953 Email: dtao@engr.uky.edu

INSTRUCTIONS:

Identify the groups or individuals reviewing the proposal; note the date of approval; offer a contact person for each entry; and obtain signature of person authorized to report approval.

Internal College Approvals and Course Cross-listing Approvals:

Reviewing Group	Date Approved	Contact Person (name/phone/email)	Signature
Mining Engineering Engineering Faculty	10/7/2011 11/28/11	Rick Honaker / 7-1108/rhonaker@engr.uky.edu 7-8827 Richard J. Sweigard rsweigard@engr.uky.edu	
		/ /	
		/ /	
		/ /	

External-to-College Approvals:

Council	Date Approved	Signature	Approval of Revision ⁶
Undergraduate Council	2/14/2012	Sharon Gill	
Graduate Council			
Health Care Colleges Council			
Senate Council Approval		University Senate Approval	

Comments:

⁶ Councils use this space to indicate approval of revisions made subsequent to that council's approval, if deemed necessary by the revising council.

COURSE SYLLABUS
MNG 191
Mine Graphics

Instructor: Dr. D. Tao
Office Address: 234E MMRB
Email: dtao@engr.uky.edu
Office Phone: 257-2953

Office hours: Tuesday and Thursday
8:00 AM to 9:30 AM

Course Description:

This course is designed to provide students an understanding of CAD core functionality and features so that they can create, edit, and organize their engineering drawings. It covers essential CAD commands and functions, including coordinate systems, drawing tools, layer management, dimensioning, undoing and altering, moving and duplicating, arrays, blocks, viewports, file maintenance, measurement and calculations, plotting and printing. The course emphasizes hands-on experience with CAD software and practical applications in mining and processing applications.

Prerequisites:
None

Student Learning Outcomes:

Outcome	Program Outcome	Implementation Strategy
Create AutoCAD drawings using line, polyline, circles, rectangles, ellipse, and arc commands	(k)	homework, project, exam.
Know basic CAD drawing skills including drawing tools, drawing editor and commands, dimensioning, coordinate systems, construction, crosshatching, blocks, etc.	(k)	homework, project, exam
Know how to edit drawings with ERASE, COPY, MOVE, EXTEND, TRIM, STRETCH, OFFSET, MIRROR, SCALE, ROTATE, UNDO, REDO, CHAMFER, FILLET, EXPLODE, MEASURE and DIVIDE commands.	(k)	homework, project, exam
Know how to manage drawing using layers, color, and linetypes; add borders, text, and dimension; manage files, set up layout; print drawing.	(k)	homework, project, exam

Program outcomes are available at the mining engineering website:
<http://www.engr.uky.edu/mng/undergraduate/outcomes.html>

Course goals or objectives:

Upon completion of this course, students will have a good understanding of AutoCAD principles and be familiar with essential drawing skills.

Required Materials:

AutoCAD Fundamentals

Description of Course Activities and Assignments

This class will be taught in a computer lab. Every student will have a computer to practice the software during the class. Drawing practices will be assigned during the class to get student familiar with the commands.

Course Assignments

- 1 Exams at 100 points
- 4-5 graded homeworks at 100 points each
- 2-3 projects at 100 points each

Summary Description of Course Assignments

One homework will be on basic drawing using line, polyline, circle, rectangles, ellipse, etc.

One homework will be on drawing tools, drawing editor and commands, dimensioning, crosshatching, blocks, etc.

One or two homework will be on ERASE, COPY, MOVE, EXTEND, TRIM, STRETCH, OFFSET, MIRROR, SCALE, ROTATE, UNDO, REDO, CHAMFER, FILLET, EXPLODE, MEASURE and DIVIDE commands.

One homework will be on layer control, object color, and linetypes; borders, text, and dimension.

Projects will be on creating complicated mining and processing flowsheets or equipment diagrams.

Final exam will cover all the commands and skills taught in the class.

Course Grading

Final Exam	40%	A:	90 - 100%	D:	60-69.9%
Project	30%	B:	80 - 89.9%	E:	< 60%
Homework	30%	C:	70 - 79.9%		

Mid-term Grade

Mid-term grades will be posted in myUK by the deadline established in the Academic Calendar (<http://www.uky.edu/Registrar/AcademicCalendar.htm>)

Course Policies:

Submission of Assignments:

Paper copies of assignments must be turned in before deadline. Late assignment will not be accepted. All assignments must be prepared and printed with Word.

Attendance Policy.

Class attendance is required. A student must arrive within 5 minutes of the scheduled start of class and must stay for the remainder of the period to be credited for attendance. Your grade will be reduced by 5% for each week-equivalent of class missed beyond one week. For example, since MNG 291 meets twice per week, the following grade reductions would be incurred:

Number of Unexcused Absences	Grade Reduction
1-2	0%
3-4	5%
5-6	10%

Excused Absences:

Students need to notify the professor of absences prior to class when possible. S.R. 5.2.4.2 defines the following as acceptable reasons for excused absences: (a) serious illness, (b) illness or death of family member, (c) University-related trips, (d) major religious holidays, and (e) other circumstances found to fit "reasonable cause for nonattendance" by the professor.

Students anticipating an absence for a major religious holiday are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays no later than the last day in the semester to add a class. Information regarding dates of major religious holidays may be obtained through the religious liaison, Mr. Jake Karnes (859-257-2754).

Students are expected to withdraw from the class if more than 20% of the classes scheduled for the semester are missed (excused or unexcused) per university policy.

Verification of Absences

Students may be asked to verify their absences in order for them to be considered excused. Senate Rule 5.2.4.2 states that faculty have the right to request "appropriate verification" when students claim an excused absence because of illness or death in the family. Appropriate notification of absences due to university-related trips is required prior to the absence.

Academic Integrity:

Per university policy, students shall not plagiarize, cheat, or falsify or misuse academic records. Students are expected to adhere to University policy on cheating and plagiarism in all courses. The minimum penalty for a first offense is a zero on the assignment on which the offense occurred. If the offense is considered severe or the student has other academic offenses on their record, more serious penalties, up to suspension from the university may be imposed.

Plagiarism and cheating are serious breaches of academic conduct. Each student is advised to become familiar with the various forms of academic dishonesty as explained in the Code of Student Rights and Responsibilities. Complete information can be found at the following website: <http://www.uky.edu/Ombud>. A plea of ignorance is not acceptable as a defense against the charge of academic dishonesty. It is important that you review this information as all ideas borrowed from others need to be properly credited.

Part II of *Student Rights and Responsibilities* (available online <http://www.uky.edu/StudentAffairs/Code/part2.html>) states that all academic work, written or otherwise, submitted by students to their instructors or other academic supervisors, is expected to be the result of their own thought, research, or self-expression. In cases where students feel unsure about the question of plagiarism involving their own work, they are obliged to consult their instructors on the matter before submission.

When students submit work purporting to be their own, but which in any way borrows ideas, organization, wording or anything else from another source without appropriate acknowledgement of the fact, the students are guilty of plagiarism. Plagiarism includes reproducing someone else's work, whether it be a published article, chapter of a book, a paper from a friend or some file, or something similar to this. Plagiarism also includes the practice of employing or allowing another person to alter or revise the work which a student submits as his/her own, whoever that other person may be.

Students may discuss assignments among themselves or with an instructor or tutor, but when the actual work is done, it must be done by the student, and the student alone. When a student's assignment involves research in outside sources of information, the student must carefully acknowledge exactly what, where and how he/she employed them. If the words of someone else are used, the student must put quotation marks around the passage in question and add an appropriate indication of its origin. Making simple changes while leaving the organization, content and phraseology intact is plagiaristic. However, nothing in these Rules shall apply to those ideas which are so generally and freely circulated as to be a part of the public domain (Section 6.3.1).

Please note: Any assignment you turn in may be submitted to an electronic database to check for plagiarism.

Accommodations due to disability:

If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (Room 2, Alumni Gym, 257-2754, email address: jkarnes@email.uky.edu) for coordination of campus disability services available to students with disabilities.

Tentative Course Schedule

1. AutoCAD introduction, terminology, drawing setup procedures, display commands, coordinate systems.
2. Basic drawing and editing commands such as line, rectangle, circle, erase, polar tracking.
3. Drawing precision with object snap, override, polar tracking, grid.
4. Making changes in drawing with MOVE, COPY, ROTATE, SCALE, MIRROR .
5. Organize drawing with layers
6. Advanced object types, including arc, polyline, polygon, ellipse.
7. Advanced editing commands, such as TRIM, EXTEND, STRETCH, FILLET, CHAMFER, OFFSET, ARRAY.
8. Create and insert blocks.
9. Set up layout and print.
10. Create and edit text, hatch, dimension.